

REMARKS

Applicants acknowledge receipt of the Office Action dated December 5, 2002. Claims 1-18 are pending in the application. The PTO has withdrawn claims 11-18 from consideration as being drawn to non-elected subject matter. However, Applicants reiterate their request for rejoinder of non-elected method claims 11 and 12 in accordance with MPEP §821.04 once product claims are found to be allowable.

Reconsideration and continued examination of the present application is respectfully requested in view of the foregoing amendments and the remarks which follow.

Rejections Under 35 U.S.C. §102

On page 3 of the Office Action, the PTO rejected claims 1-2, 4, 6 and 9 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,849,254 to Suzuki *et al.* (hereafter "Suzuki"). As set forth below, Applicants respectfully traverse this rejection.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *See generally* MPEP §2131. Here, Suzuki fails to disclose "a catalytic component I containing Cu oxide and Zn oxide" as recited in independent claim 1.

The PTO has stated, on page 3 of the Office Action, that "Suzuki discloses...an upper layer . . . comprising oxides of at least one metal selected from the group consisting of iron (Fe), cobalt (Co), nickel (Ni), copper, (Cu), and Manganese (Mn) (see col. 11, claim 1)." The PTO continues in the next sentence, stating "Suzuki further discloses that zinc (Zn) can be added (see col. 2, ln 55-56)." These statements, however, appear to be different than the disclosure of Suzuki.

First, a careful review of the last full paragraph in column 2 reveals that Suzuki's reference to loading zinc is directed solely to adding zinc to a noble metal catalyst layer (the first catalyst layer) and that there is no disclosure of adding zinc to a completely different

catalyst layer which comprises oxides of metals selected from the group consisting of Fe, Co, Ni, Cu and Mn. It is clear, from a thorough reading of this paragraph, that Suzuki is referring to adding zinc to a noble metal catalyst layer (the first layer) because Suzuki explicitly states that the Zn is added to the noble metal catalyst (the first catalyst layer) (i) to prevent adsorption of SO₂ from being adsorbed on the support and (ii) to prevent SO₂ from being oxidized by the noble metal catalyst. Thus, Suzuki fails to disclose "a catalytic component I containing Cu oxide and Zn oxide" as recited in claim 1. As a result, Suzuki cannot properly anticipate claim 1, and the rejection under §102 respectfully should be withdrawn.

Second, Applicants note that the PTO has taken different teachings from distinct embodiments in Suzuki a manner that is not explicitly disclosed by Suzuki. Specifically, Suzuki discloses 10 "preferred embodiments". Specifically, the PTO has combined elements of the embodiments encompassed by claim 1 with a distinct embodiment referenced as "a first aspect of the present invention" in the "Summary of the Invention" portion of the disclosure. As an example of the differences between the embodiments, the embodiments encompassed by claim 1 are limited to only multilayer catalysts with different layers arranged longitudinally as opposed to the single layer catalyst (having different layers arranged axially) that is disclosed in the last full paragraph in column 2. This is significant because Suzuki discloses adding Zn to the first layer (as arranged axially) because "automotive gases contact the first catalyst [first]" as they flow across a series of catalysts arranged axially. Clearly, the considerations used by Suzuki for selecting the compositions for a plurality of catalysts arranged in sequence axially along a substrate are distinct from the considerations for selecting the compositions for each of a plurality of catalysts arranged in sequence longitudinally on a substrate (i.e. as a stack of a plurality of layers on top of a substrate). This picking and choosing bits and pieces from a variety of distinct embodiments demonstrates that Suzuki fails to show the identical invention in as complete detail as is contained in the claim and that, as a result, Suzuki cannot properly anticipate claim 1 within the meaning of §102.

Claims 2, 4, 6 and 9 each ultimately depend from claim 1, and it is submitted that each of these claims is allowable for the same reasons as claim 1.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections under §102.

Rejections Under 35 U.S.C. §103

On page 4 of the Office Action, the PTO rejected claims 3, 5, 7-8 and 10 under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of U.S. Patent 5,376,610 to Takahata *et al.* (hereafter "Takahata"). Applicants respectfully traverse this rejection for the reasons set forth below.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA 1974). See MPEP §2143.03. As discussed *supra*, Suzuki fails to disclose "a catalytic component I containing Cu oxide and Zn oxide" as recited in independent claim 1. Takahata adds nothing to resolve this fundamental deficiency in the primary reference Suzuki. Accordingly, neither Suzuki nor Takahata, taken either individually or in combination, teach or properly suggest "a catalytic component I containing Cu oxide and Zn oxide" as recited in independent claim 1.

As already discussed above, a careful review of the last full paragraph in column 2 of Suzuki reveals that Suzuki's reference to loading zinc is directed solely to adding zinc to a noble metal catalyst layer (the first catalyst layer) and that there is no disclosure of adding zinc to a completely different catalyst layer which comprises oxides of metals selected from the group consisting of Fe, Co, Ni, Cu and Mn. It is clear from this paragraph that Suzuki is referring to adding zinc to a noble metal catalyst layer (the first layer) because Suzuki explicitly states that the Zn is added to the noble metal catalyst (the first catalyst layer) (i) to prevent adsorption of SO₂ from being adsorbed on the support and (ii) to prevent SO₂ from being oxidized by the noble metal catalyst. Given this disclosure, a person of ordinary skill in the art would have no motivation for including Zn in a catalyst layer comprising a copper oxide, and Takahata adds nothing to resolve this deficiency.

As also discussed *supra*, Applicants note that the PTO has taken different teachings from distinct embodiments in Suzuki in a manner that is not explicitly disclosed or suggested

by Suzuki. Specifically, Suzuki discloses 10 "preferred embodiments". By citing language from claim 1, the PTO has attempted to combine elements of the embodiments encompassed by claim 1 with a distinct embodiment referenced as "a first aspect of the present invention" in the "Summary of the Invention" portion of the disclosure. As an example of the differences between the embodiments, the embodiments encompassed by claim 1 are limited to only multilayer catalysts with different layers arranged longitudinally as opposed to the single layer catalyst (having different layers arranged axially) that is disclosed in the last full paragraph in column 2. This is significant because Suzuki discloses adding Zn to the first catalyst layer (as arranged axially) because "automotive gases contact the first catalyst [first]" as they flow across a series of catalysts arranged axially.

Given the stated purposes for incorporating Zn, and even taking into account the disclosure of Takahata, Applicants submit that a person skilled in the art would find no motivation in the cited references for incorporating Zn into other layers or incorporating zinc into embodiments comprising a plurality of layers stacked longitudinally. Accordingly, Applicants submit the references, as combined by the PTO, fails to disclose all of the features of the presently claimed invention and fail to provide any proper motivation for modifying their collective disclosures to arrive at the presently claimed invention.

If an independent claim is nonobvious under §103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03. Thus, Applicants submit that claims 3, 5, 7-8 and 10, which ultimately depend from claim 1, are also non-obvious.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of this rejection under §103.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly

solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date June 5, 2003

By Michael D. Kaminski
Reg. No. 32,904, for

FOLEY & LARDNER
Customer Number: 22428



22428

PATENT TRADEMARK OFFICE

Telephone: (202) 672-5414

Facsimile: (202) 672-5399

Richard L. Schwaab
Attorney for Applicant
Registration No. 25,479